

Chapter 2

Forest Resources are Valued Assets



Washington is appropriately known as “the Evergreen State.” From along its shores to the flanks of its mountain peaks, conifer-dominated forests are a key part of Washington’s landscape—they cover about half the state.

Forests have always been instrumental in the lives of the people who live here. Native peoples—both coastal and inland tribes—traditionally used a wide variety of forest products. Much of the state’s early modern settlement and development relied on its timber industry. And today, Washington State’s residents continue to value its forests. They rely on forestlands for employment; investment; inspiration; recreation; water for drinking, irrigation and vital fisheries; wildlife habitat; construction materials; and more.

Privately owned forests provide many of these benefits. In fact, about 40 percent of the forestland in Washington is privately owned, and private ownership is split almost evenly between industrial forests and non-industrial or family forests.

The Forest Legacy Program is designed to protect environmentally important forestlands threatened by conversion to other uses, specifically forests that provide timber and other forest commodities, scenic resources, public recreation opportunities, riparian areas, fish and wildlife habitat, known threatened and endangered species, known cultural resources, and other ecological values.

These multiple uses and benefits are at risk of being lost when forests are converted to non-forest uses. Understanding these benefits, the forests that provide them, and the partners working to support those forests is key to understanding the Forest Legacy Program in Washington State.

The nature of Washington's forests

Washington's forests are part of a rich and diverse natural heritage. Although Washington is known as the Evergreen State, vegetation types range across a wide spectrum from temperate rainforests on the Olympic Peninsula to grasslands and shrubs of the steppes and semi-deserts in the Columbia Basin.

This extreme variation in vegetation and habitats is a result of Washington's geologic history and dramatic changes in physical characteristics over relatively short geographic distances.

The Cascade Range and Columbia Plateau are volcanic, while the Olympic Mountains have been thrust up by the interaction of the earth's continental and oceanic crustal plates. Continental glaciers carved out Puget Sound and left deposits of rock, sand and gravel on both sides of the Cascade Range, and massive glacial flooding left a patchwork of scablands and rich soils on the Columbia Plateau in eastern Washington.

The result is topography with elevations that range from sea level at the coast to 14,411 feet at the summit of Mt. Rainier. Precipitation ranges from 200 inches annually in parts of the Olympic Mountains to only seven inches annually in some areas east of the Cascades, a result of the interaction between Washington's topography and moist air coming off the Pacific Ocean.

Together with soils, such variations in precipitation and elevation shape Washington's forests. Like the rest of the state's geography, Washington's forests are diverse. Coastal rain forests and lowland forests share the state with montane forests and the alpine and sub-alpine forests of the Olympic Mountains and the Cascade Range. The Cascade Range divides the state into two major, contrasting zones: the wetter, more temperate western half of the state, and the drier eastern half, which has more extreme temperatures and a shorter growing season.

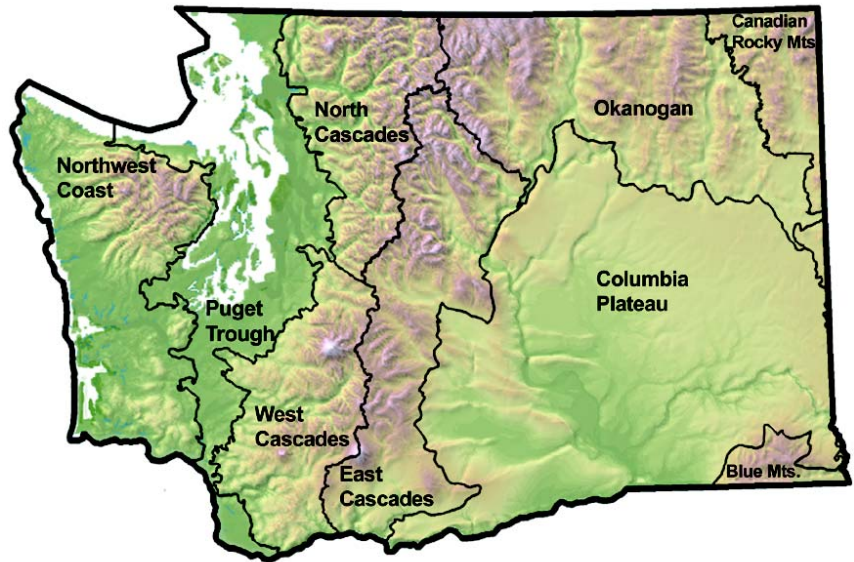
Eight of Washington's nine ecoregions are characterized by forests, and support working forest landscapes. (The Columbia Plateau ecoregion is characterized as shrub-steppe. See Fig. 2.1.) While many of the same tree species can be found in more than one ecoregion, the character and composition of forests differ among them. Even within a single ecoregion, the composition of lowland forests differs from that of highland forests. Depending on location, a Washington forest may feature Douglas fir, spruce, hemlock, redcedar, fir, pine, larch, alder, oak, maple or madrone—or a combination of species. (See Appendix B for a more detailed description of the forests of each ecoregion.)

Fig 2.1 – Ecoregions of Washington**BIG TREES
GROW HERE**

The largest known specimens of several commercially valued conifer species are found in the state of Washington:

- Douglas fir
- Western hemlock
- Sitka spruce
- Western redcedar
- Alaska -cedar
- Pacific silver fir
- Noble fir

Source: American Forests
2004-2005 National
Register of Big Trees



The combination of soils and climate has made Washington forests among the most productive in the world. With the exception of only the highest elevations, virtually all of western Washington's temperate forests extending to sea level produces some of the largest timber volumes in the world. However, development over the past 100 years has resulted in the conversion of 2 million acres of forest to other uses. Much of this has been in the low elevation Douglas fir plant communities on the west side of the Cascade Range, near population centers where some of the most productive forest soils and favorable terrain exists.

Soil Productivity

Soil is a fundamental basic medium for forest growth and rooting, and the storehouse of mineral nutrients and water required by the forest community. Among the most important soil related properties affecting or affected by forest management activities are topography, soil texture, rock fragment content, soil drainage characteristics, the parent material from which the soil was derived, soil depth, and amount, character and distribution of soil organic matter. Soil is the product of interaction of climate, organisms, parent material, topography and time.

Site indexes of forest productivity are generally higher in non-glaciated areas. Generally in Washington, most private non-industrial forestlands contain higher-site classes. These lands are typically lower in elevation and more often associated with valley bottoms and low-lying foothills.

On the west side of the Cascade Range, for example, low elevation site classes will generally be Douglas Fir Site I to Site III. Site II Douglas Fir

soils are widely distributed in most areas below 1,500 feet in elevation. Timber stocking on 40- to 60-year-old naturally established conifer stands range from 25,000 to 40,000 board feet, Scribner Log Scale per acre. Ironically, these are areas where many of Washington's urban centers are located.

East of the Cascade Range, forest soils are generally more glaciated and less productive and human population is sparser than in much of western Washington, but it is still primarily the valleys and the lower elevations that have been settled and that have the more productive soils and accessible sites.

Although eastern Washington soils may not support the giant firs and cedars found on the coast, they do support sizeable, valuable pine, and larch forests that are adapted to a drier climate and more marginal soils.

Not all forested lands with productive soils in Washington are well suited for timber production. Unstable soils in many areas reduce operational flexibility for roads and harvest options. This results in increased costs and some inoperable sites. When the more operable, productive areas are converted to other uses, these inoperable or less stable sites cannot substitute.

The events and conditions that shape Washington's soil are largely climatic and geologic, and cannot be easily reproduced or re-created elsewhere. The Forest Legacy Program helps protect the benefits these forests provide—literally from the ground up.

GENERAL SOIL CHARACTERISTICS OF FORESTED ECOREGIONS IN WASHINGTON STATE

- **Northwest Coast** – In the southern part of this ecoregion, the Willapa Hills area was not subject to scouring by glaciation during the Pleistocene period; its absence has produced a region largely covered by relatively mature surface soils. The long time during which soil forming processes have been active have produced an area characterized by deep, medium to fine textured soils. In the northern part of ecoregion, the Olympic Mountains area is characterized by high annual precipitation and soils with generally shallow to moderate depths. The shallow to moderate soil depths have been generally influenced by a combination of glacial activity centered in the Olympic Range, the character of the geologic parent material, and recent geomorphologic processes.
- **Puget Trough** – Within the maximum extent of the continental glaciation, soil patterns are very complex with much local variation. Parent materials range from various bedrock, outwash sands, and gravel to glacial tills. At the extent of continental glaciation, approximately south of Olympia, soils are more influenced by volcanic components. Due to the relative youth of most soils in the region (less than 13,000 years), characteristics of the parent materials have been little altered by soil forming processes. Most of these soil types do contain Mazama ash in upper horizons.
- **North, West, and East Cascades** – Soils in these regions are perhaps the most diverse. Variations in elevation, precipitation, parent material, topography, and vegetation contribute to a wide range of soils. Soil depths generally vary with elevation. Glaciation, erosion, and mass wasting have left large areas of exposed rock and shallow soils. In other areas are large areas of deep and moderately deep solids formed on a variety of parent materials, including volcanic-ash deposits and deeply weathered bedrock.
- **Okanogan and Canadian Rocky Mountains** – Like the Cascade Range to the west, these ecoregions contain a wide range of environments and soils. Elevation and rain shadow effect of the Cascade Range has a great effect on mean annual precipitation, forest communities and soils. The area has been extensively glaciated. Glacial outwash and till deposits are the predominant soil parent materials; glacial lacustrine deposits are also common in some areas. Wind-deposited soil materials (predominantly silt, and volcanic ash deposits) blanket much of the area and overlie the glacial deposits.
- **Blue Mountains** – This ecoregion has climatic characteristics similar to those of the Okanogan Ecoregion, but with slightly lower maximum can annual precipitation at higher elevations. The area is underlain primarily by basalts. Glacial deposits of basaltic material are found at higher elevations, while wind deposited parent materials (loess) become common at the lower elevations. Evidence of volcanic ash-fall materials is common in many soils in the area.

Adapted from Forest Land Management Program Final Environmental Impact Statement.
DNR. 1983.

The need for Washington's forests

Washington's forests play many important roles. As native ecosystems, they support wildlife, filter water, supply oxygen and more. And as a source of natural resources, they support human lives, lifestyles and livelihoods.

Dependence on natural resources, particularly timber and fish, is a long-standing aspect of the cultural heritage and identity of Washington State. Forest resources not only provide significant economic benefits through timber production, mineral extraction, grazing, and tourism, they also are an important part of the state's heritage, culture and scenic character.

The valuable assets and uses discussed in the remainder of this chapter are protected when forestlands remain in forest uses. These assets can be found on public and private forests throughout the state. Because the Forest Legacy program promotes long-term protection and fosters traditional forest uses by providing private landowners with a mechanism to continue forest production on lands that would otherwise be converted to other use, the program can help Washington maintain these valued aspects of its heritage, identity, culture and economy:

- Forest products
- Water resources
- Fish and wildlife habitat
- Cultural and historical resources
- Minerals
- Recreation
- Scenic values

Timber and Other Forest Products

Forest products historically have been an important part of Washington's economy, and are currently a significant industry in the state. In 2002, about 45,000 people were employed in the forest products industry in Washington: Lumber and wood products related jobs employed 31,000 people while paper and allied products employed 14,000. The wages from these jobs are significant, especially in the less urban portions of the state.

Washington's \$176 billion gross state product (1997) included \$2.2 billion from lumber and wood products (1.2% of the total). Paper and allied products contributed another \$1.3 billion in the same year. New technology and changes in manufacturing processes continue to create new products for use throughout the world. Washington's numerous deep-water ports aide in the efficient transportation of these forest products.

WOOD PRODUCTS

Mills and manufacturers in Washington turn timber into:

- lumber
- plywood
- oriented strand board
- paneling
- decking
- doors
- furniture
- pallets
- trusses
- crates
- paper
- cardboard
- engineered wood
- millwork
- compressed fuel logs
- wood pellets, hog fuel
- landscaping bark

Historically, international markets were important to Washington forest landowners. The downturn in the economies of many Pacific Rim nations, together with increased supply from other regions, has negatively impacted the financial returns of many Washington forest landowners. The premium paid for export quality logs has decreased dramatically in recent years throughout the Pacific Northwest. The reduction in the price paid for export logs has reduced the number of logs which have been exported, and this has helped contribute to an increase in the domestic log supply in the Pacific Northwest and a lowering of stumpage prices paid to landowners for logs. For some landowners, reduced returns may provide incentive to sell their forestland or convert it to other uses. Improvements in the economies of Pacific Rim nations and in the United States will provide increased economic returns to Washington forest landowners but rates are not expected to increase significantly.

Harvests from Washington forest landowners support sawmills, veneer production, veneer logs, poles, piling, and pulp production in a variety of ways. Most small forest landowners sell their timber directly to a logger who harvests the timber and sells logs directly to domestic mills or exporters. Some small landowners and many medium sized owners sell their logs directly to one of the dozens of lumber and pulp mills located throughout the state or to a logs broker. Some large private landowners process a portion of their timber in their own mills. The majority of forest revenue comes from marketing timber or timber products.

The harvest of timber in Washington State are highly regulated by the state's Forest Practices rules. In 1999 the state adopted the "Forests and Fish Report" as the standard for forest stewardship of non-federal forestlands. The rules based on this new standard provide protection for salmon and other aquatic species. For example, under the "Forests and Fish" rules all road culverts that block fish passage are being identified and must be replaced.

Special forest products

Special forest products provide another opportunity for Washington's forest landowners to market products from their lands. Special forest product revenues to forest landowners come mainly from product sales in the following categories: floral greens, Christmas ornamentals and evergreen boughs, mushrooms, landscaping plants, dried flowers, edibles, herbs, and medicinals. This industry is growing both in diversity and in overall total revenues for products, and special forest products are marketed both domestically and internationally. The size and scope of these operations can be as small as children picking wild huckleberries or as large as a company with 150 employees shipping containers throughout the world. While it is difficult to measure all of the elements within this industry, the current market in the Pacific Northwest may be as high as \$250 million.

Grazing

While cattle, sheep, and horses are not forest products per se, grazing is often part of forestland management in eastern Washington. It can be a source of income while timber is maturing. Landowners typically manage the livestock themselves or lease the land to ranchers who need supplemental forage for their stock. Few grazing opportunities exist in western Washington. Some landowners in western Washington have experimented with sheep and goats, although the primary purpose was for brush control, not revenue from livestock.

Many forest areas that produce high quality forage have become wildlife management areas. One of the primary limitations for elk and mule deer populations on the east slope of the Cascade Range is the availability of winter forage and browse. Some landowners lease their property to the Washington Department of Fish and Wildlife or wildlife conservation groups as a source of income.

Grazing on forestlands is less prevalent now than it was in the past. Heavy tree stocking rates and wildfire prevention measures have allowed the canopies to shade out grass and forage in some areas that formerly could support livestock.

Water Resources

A look at the differences between forests on the west and east sides of the state clearly shows the influence of water. However, the forests themselves are a major influence on Washington's water resources. The vast majority of watersheds that produce water in excess of what is used by plants, stored in the soil, or lost by evaporation are forested under natural conditions. Therefore, forestland is a significant source of water for stream flows and aquifer recharge in Washington. Forests play an important role influencing the timing, quantity, and quality of water and maintaining riparian and in-stream habitat.

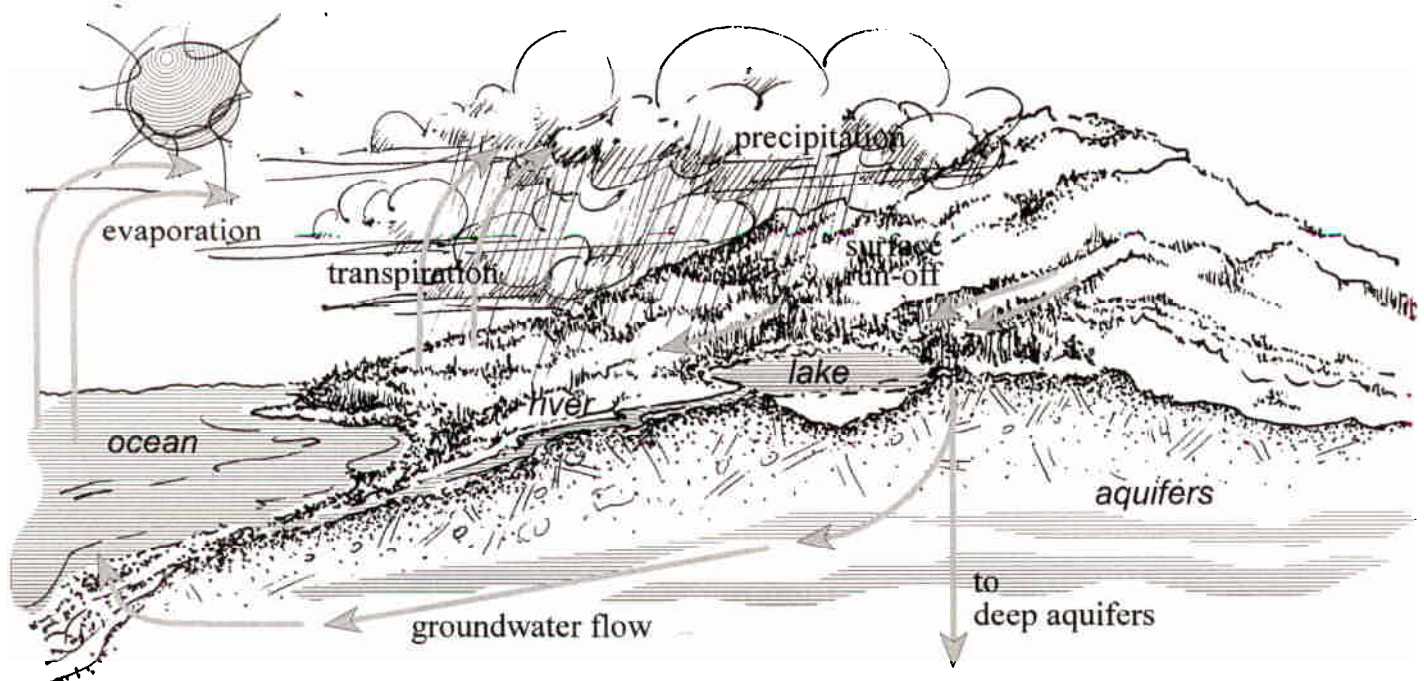
Forests influence when snowmelt is released and how quickly water reaches stream channels. In areas where a snow pack accumulates over the winter, shade from forest vegetation reduces the rate of melt in the spring. Snowmelt rates are also lower under the forest canopy than in the open during rain-on-snow events that are often associated with winter flooding. Forest soils generally have high infiltration capacities because of the proportion of organic material in the upper horizons and the macropores associated with root systems of forest vegetation. Consequently, most snowmelt and rain that reaches the forest floor infiltrates into the soil, and water not held in the soil column is available for aquifer recharge or for lateral subsurface transport to stream channels. Forest cover not only cleans water resources, it is critical for recharge for groundwater reserves.

Forest vegetation influences the quantity of water available for aquifer recharge and stream flows in two ways. Tree crowns and understory vegetation intercept a portion of precipitation before it reaches the forest floor. Most of this water is lost to the atmosphere through evaporation. Some of the water that infiltrates into the soil is extracted by plant roots to be incorporated into the vegetation or lost to the atmosphere through the transpiration process. Water extracted from the soil must be replaced before excess water is available for aquifer recharge or stream flows.

The quality of surface water is enhanced by the presence of forest vegetation. Trees in the riparian areas of forest streams provide shade to protect water temperature as well as minimize bank erosion with their deep root systems. Because overland flow is uncommon in undisturbed forests, delivery of sediment to surface water by sheet and rill erosion is also uncommon. Although mass wasting naturally occurs on steep slopes in several areas of Washington, forest vegetation moderates the frequency and severity of these events because of stabilizing root systems and to some extent the reduction of positive pore pressure that is often the triggering mechanism of a land slide.

Competing demands for water for irrigation, consumption and habitat needs are making Washington's forests increasingly important for meeting the state's water supply needs.

Fig. 2.2 The Hydrologic Cycle





**FOREST WILDLIFE
SPECIES IN
WASHINGTON THAT
ARE FEDERALLY
LISTED AS
THREATENED OR
ENDANGERED**

Terrestrial species

Grizzly bear
Woodland caribou
Columbian white-tailed
deer
Gray wolf
Canada lynx

Avian species

Bald eagle
Marbled murrelet,
Northern spotted owl

Aquatic species

Nine species of sockeye,
chinook, and chum salmon
Four species of steelhead
Bull trout

Fish and Wildlife Habitat

Washington's forests are habitat – the natural home for many fish and wildlife species, from large mammals to tiny insects, from resident populations to seasonal migrants. Some of the animals in Washington's forests are game animals, but many more are not. Washington's fish and wildlife are valued for sport, commerce, viewing, cultural significance, and as creatures with a place in the ecosystem.

One “critter” that relies on Washington's forests is a Northwest icon – salmon. Salmon are important in the state's history, culture, and economy. Salmon, as well as steelhead trout and other species, depend on forests to shade (and thus cool) streams and other bodies of water. Salmon also need clean gravel for spawning, and riparian forests filter runoff, keeping silt out of streams. Large woody forest debris that falls into the water provides hiding places and nutrients for young salmon. Riparian vegetation is also an important source of nutrition for aquatic invertebrates.

Protecting lower elevation forestlands and riparian areas is necessary for sustaining salmon runs. The Washington State Forest Practices rules are dedicated to the protection of fish and wildlife habitat. Also, many Habitat Conservation Plans help protect habitat on private, local government, and state working forestlands.

Washington salmon runs, in turn, feed other forest species, such as bears, as well as a national icon – the bald eagle, which feeds off the dead carcasses of spawned out salmon. Migratory and year-round resident eagles in Washington make up the largest population of bald eagles in the contiguous 48 states.

Marine species (residents of salt water) such as shellfish, also rely on Washington's forests. When rivers and streams flow from the forest into estuaries, bays and inlets, they provide a source of clean water and nutrition, becoming part of salt-water ecosystems and species habitat. And at sea, the salmon that rely on Washington forests are food for seals, sea lions, and Orcas.

Forest habitat is a key part of such connections in the food chain, but the connections on the ground are also important for Washington's wildlife. Wildlife corridors are needed by migrants and residents alike to get from one place to the next, from wintering grounds to breeding grounds, from foraging sites to resting sites. Also, some species in Washington require large individual territories. A male cougar, for example, requires a home range of up to 100 square miles.

The location and type of forest are also important. Some species are adapted to various forest types and can be found across the state. Others have more restrictive habitat needs. For example, elk can be found on

both sides of the Cascade Range, but the marbled murrelet (a forest-dwelling seabird) is found only within about 65 miles of the coast.

Threatened and endangered species

In Washington State, 30 species of wildlife are federally listed as threatened or endangered. Twenty-two of these are associated with forests (see list). Salmon and bull trout are the focus of land management concerns statewide, and in western Washington, considerable attention also has been focused on the northern spotted owl and the marbled murrelet. Similarly in eastern Washington, attention has been focused on the Canada lynx, and in the northeast portion of the state, on the Woodland caribou.

In Washington, much of the protected habitat for threatened or endangered species is on state and federal lands. On these lands, the policies of these agencies result in protection being provided to not only the species themselves, but also the ecosystem upon which they depend. Protecting whole ecosystems is particularly important for protecting the many species that remain poorly described and poorly studied, especially insects, mollusks, and other invertebrate species which are more directly related to key ecosystem processes than well-known vertebrate species.

On private lands, protection under the Endangered Species Act has been focused on habitat protection for individual animals, and has not focused on diverse ecosystems, which is only moderately effective in preventing degradation of habitat. Many large forestland holders are entering into Habitat Conservation Plan Agreements with the US Fish and Wildlife Service. These agreements have helped shift the focus to ecosystems and landscapes.

State-listed species

Many wildlife species in Washington State are not federally listed but are still of concern because they are at risk of being extirpated from the state. Some of these species may be candidates for federal listing. The northern spotted owl was on the state's list of threatened and endangered species two years before the federal government listed it.

In western Washington, these state species of concern include the pileated woodpecker, great blue heron, northern goshawk, golden eagle, Dunn's salamander, larch mountain salamander, Van Dyke's salamander, American marten, fisher (which already may be extirpated from the state), Yuma myotis, Keen's myotis, and Townsend's big-eared bat.

In eastern Washington, a recent assessment of habitat of sensitive species in the Interior Columbia River Basin identified species that are vulnerable because the habitat types that best support successful reproduction are in decline. Several of these species are associated with forest habitats, including the white-headed woodpecker, white-breasted nuthatch, pygmy

nuthatch, Lewis' woodpecker, northern goshawk, flammulated owl, American marten, fisher, Vaux's swift, Hammond's flycatcher, three-toed woodpecker, Silver-haired bat, hoary bat and western bluebird. Many of these species are associated with habitat elements (e.g., large dead standing and down trees) that have become increasingly rare and are difficult to restore once they have been lost.



Cultural and Historical Resources

Washington's forests have long been at the center of people's history, identity, economics and culture.

Tribes of the Pacific Northwest have depended on a myriad of forest resources—animal, vegetable, and mineral—as the means for survival and integral parts of the people's cultural and spiritual bonds to the land and each other. Thousands of years of experimentation have made the Indians of the Pacific Northwest experts on forest resources. As skilled fishers, hunters and plant collectors, as well as skilled artisans and technicians, they used an astonishing array of species for specific purposes and still do today. Salmon are particularly important to some tribes. Water quality and protection of habitat will be critical for protecting basic cultural values. The connection to forests is not merely an aspect of their past, it is an essential part of their future, too.

For the tribal peoples in Washington, places also were and are resources. Many places are identified with a particular spirit. Prominent geological and geographic features are often sources of spiritual power and have been incorporated in the peoples' myths and legends. Other isolated places are used to store ceremonial gear that is an integral part of yearly ceremonies. Such types of sites are known as Traditional Cultural Properties.

At the time of historic contact there was a large native population in Washington. Although there are hundreds of recorded prehistoric sites, much of the state has not been surveyed. Very little work has been done in dealing with Traditional Cultural Properties (TCP). Many known sites have not been inventoried or protected. It is important to preserve even well-studied sites as new knowledge leads to new discoveries. Major threats to prehistoric sites are natural processes and construction and development.

In addition to cultural sites historically associated with tribal use, there are remnants of the past two centuries of settlement in Washington that may still be found in the forests. Euro-Americans, like Native Americans, used the state's forested lands for resource extraction. However, the scale and intensity was much greater and the relationship with the land much different.

The Pacific Northwest was first visited by Euro-Americans during the late 1700's, with explorers charting and describing the coastline. Fur traders were the first Euro-Americans to set up residence. The fur traders were representatives of large corporations involved in international trade.

The best known of these fur trade companies was the Hudson's Bay Company with posts at Vancouver, Nisqually, Okanogan, Colville, etc. By the late 1830s, the Hudson's Bay Company had expanded into agricultural production, maintaining large farms in the lowlands around Fort Vancouver and Nisqually and in the lower Cowlitz.

The earliest American settlers tended to cluster a short distance away from the trading posts. Many of the settlers were drawn by the promise of farmland and tended to settle in the rich alluvial plains. Many however, came to exploit the region's timber and mineral wealth.

The state's timber industry began in the 1850s and loggers concentrated on large trees close to coastlines and the major rivers. The next stage, after these trees had floated to the mills, was using teams of oxen to haul logs to water along skid roads. These roads may still be found in waterlogged settings. Mechanized logging began in the 1880s using steam locomotives and steam donkeys. In addition to skid roads, sites associated with logging include railroad grades and tracks, trestles, skid trails, logging roads, construction and logging camps, splash dams, stumps cut with springboard notches, and a variety of equipment.

Mining also has left its traces throughout the state. On the west side of the state, coal was the primary resource. On the east side of the state a variety of minerals and gems were mined. In addition to large, open pit mines and haul roads, traces of past mining occur as mining prospects, miners' camps and mineshafts.

Future values

Although the historical value of Washington's forests is rooted in the past, their cultural value extends into the future. New cultural sites are created as Washington's people continue to use and value its forests. New traditions are created for forest resource use. Many benefits may not yet be realized or even anticipated. For example, a century ago, who would have foreseen forests being valued for cleaning polluted air and storing carbon?

Forests are deeply engrained in the state's culture. Even the state's nickname – the Evergreen State – shows the impact of forests in Washington State.

Mineral Resources

Today in Washington, metallic mineral deposits (and production) are limited, although there are deposits of gold, lead, and zinc with significant production history, as well as some other metal deposits.

A variety of nonmetallic mineral deposits have been explored in Washington, but by far the most important economically have been sand and gravel associated with the glacial moraines and the floodplains of the state's river systems, as well as the basalts quarried for crushed rock, rip rap, and jetty stone. These aggregate and stone resources are widely distributed across the state. They remain the most economically significant mineral products in the state. A major market for these aggregate and stone resources has been the road, railroad, port, and similar infrastructure to support Washington's continued growth. Also, many rock pits and quarries exist for the construction and maintenance of forest roads.

The growth in Washington is concentrated in the easily developed Puget Lowlands and the floodplains along the major rivers. This growth pattern limits access to the aggregate materials in these areas. One result of this development pattern is to push the extraction of these needed resources into forest and agricultural areas, with the resulting acceleration of the conversion of these lands to alternative uses.

Recreation



A 2002 report from Washington's Interagency Committee on Outdoor Recreation (IAC), titled *An Assessment of Outdoor Recreation in Washington State*, shows that more than half of the state's population participates in some form of outdoor recreation. The report identifies 15 major categories of recreation. Some activity from nearly every category takes place in a forest setting in Washington. About 10 million acres of public land are managed in whole or in part for outdoor recreation, habitat, and environmental protection. The vast majority are federal lands, including three forested national parks, several national recreational areas and six national forests. More than 2 million acres are forested state trust lands, which are managed for multiple use and allow recreation as long as it does not conflict with trust management goals. In addition, some state-owned forested areas have been dedicated to recreation (State Parks) and others are dedicated to species, habitat or ecosystem protection but allow specific forms of recreation. Some city and county parks also are forested.

Private campgrounds and resorts also provide recreation in forested settings as their main business. Other private forest landowners, including large timber companies, accommodate public recreation. In this respect, private timberlands resemble forested state trust lands, where

recreation is allowed as long as it does not compromise the owner's ability to manage for business purposes.

RECREATION IN WASHINGTON FORESTS

- walking/hiking
- nature activities
(bird watching,
photography, etc.)
- sightseeing
- bicycle riding
- picnicking
- fishing
- camping
- water activities
(boating, canoeing, etc.)
- off-road vehicles
- hunting/shooting
- horseback riding
- snow activities
(cross-country skiing,
snowmobiling)
- air activities
(hangliding, paragliding)

Up until the 1980s most of the larger forest landowners allowed free and unfettered access to their lands on a year-round basis for hunting and fishing purposes. Due to garbage dumping, drug production activities (methamphetamine labs), theft, potential for forest fires, increasing security costs, vandalism to property, and an increasingly litigious society, most of these companies have gated their property and currently require walk-in access or open gates for a short period of time for hunters. Some are beginning to charge access fees for hunting or fishing. Although this practice is common on forestlands throughout much of the United States, this is a relatively new event within Washington State and is somewhat controversial.

Privately owned forestlands could potentially provide outstanding recreation opportunities and access for the public, but major stumbling blocks are liability, protection of resources, impacts on resource production and harvest. Some of the impacts of these issues can be reduced by public education, and state laws that limit liability, but most of the risk cannot be mitigated.

Some forested public lands also have been gated and recreation sites have been closed because of lack of adequate funding for maintenance. Funds have diminished at the same time that maintenance costs have increased due to increases in problems such as those outlined above.

Access to most public forested lands is also less convenient than many recreationists prefer. The IAC report notes that nearly half the recreation visits – of all types – are to local government facilities. However, the bulk of forested opportunities are located on state and federal lands, and most federal lands are at higher elevations distant from populated areas, and able only to host relatively low-participation



Aesthetic and Scenic Values

For most Washington residents, forests are a backdrop to their daily lives. Forests surround most of the state's cities. Both residents and visitors passing through the state are quickly made aware of the presence of the forest. Travelers on the two interstate highways that bisect the state (one north-south, the other east-west) or on the ferries that service Puget Sound and the Olympic Peninsula have their trips enhanced by views of nearby forest stands or distant forested and snow-capped mountains.

The aesthetic value of Washington's forests is a major attraction. In addition to the Columbia Gorge National Scenic Area, Washington contains three forested national parks and numerous national recreational areas and monuments, known throughout the nation and world.

The 1997 *Washington State Visitor Profile* from the Washington Department of Community Trade and Economic Development identified relaxing and sightseeing as the Number 1 trip activity for travelers in the state in 1995/1996, with 54 percent of the trips involving this activity. Visiting a state park or national park ranked fourth and fifth, respectively. Half of the travelers were Washington Residents.

Washington's outstanding scenery is an important factor in the quality of life for both residents and visitors. Forests are only a part of that scenery, but much of the image and identity of the state is derived from the visual character of the state's forests.



Partners in protecting forest landscapes

Although most forest landowners have differing missions, many share common goals and objectives; these stakeholders can easily become partners in conservation effort that shape the landscape, and working together, can create better results.

While the largest forest landowner in the state is the federal government, throughout Washington the state manages forestland for commodity production and conservation purposes. In combination, these management objectives make a considerable contribution to benefit values associated with forestlands. Private industry, local government, the public, and non-profit entities also make a significant contribution to conservation and preservation with their forestland ownership.

Conservation of forestlands through the Forest Legacy Program directly contributes to the conservation of values discussed earlier in this chapter: The program is designed to permanently protect timber management, fish, wildlife, scenic, recreation, cultural, and riparian resources for future generations.

Land trusts, private interests, and government recognize the critical role that working forest landscapes play, especially near population centers where threat of forest conversion is greatest. The state implements the Forest Legacy Program, in cooperation with interest groups and local government, to provide opportunities for conservation of connective forest landscapes.

Land trusts and local governments have contributed millions of dollars toward conservation efforts that directly complement and leverage Forest Legacy Program transactions. Combining other programs, strategies, and funding with Forest Legacy Program projects provides unparalleled focused conservation benefits. When positioned strategically, lands acquired and managed through these programs can complement the

goals and objectives of the other. For example, efforts such as the Mountains to Sound Greenway and the Cascade Foothills Initiative provide a common goal and a means to connect and coordinate various landowners and programs in order to focus their multiple efforts for on-the-ground effectiveness.

Fig. 2.3 Cascade Foothills Initiative



Washington State is carefully assessing how conservation and preservation land acquisitions complement management of working forest landscapes, and how they contribute to sustaining of biodiversity, good water quality, local communities, recreation, and other values.

Washington State intends to use available resource data and other sources to evaluate how Forest Legacy project proposals support land acquisition goals, objectives and criteria, and to prioritize potential land transactions for inclusion in the Forest Legacy Program. The contribution of the individual parcel in the larger conservation landscape is of critical importance; evaluation resources could include: Ecoregion Assessments, Department of Natural Resources Region Assessments, Geographic Information Systems products, Nature Serve Program, Local Habitat Conservation Plans (HCPs), Forest Practice and Regulatory requirements, Pertinent Land Management Plans, Growth Management Plans, and more.

The Washington State Department of Natural Resources (DNR), which manages the state Forest Legacy Program also manages other land

acquisition and conservation programs that in conjunction with the Forest Legacy Program, complement each other to provide excellent landscape benefits.

- *Washington Natural Heritage Program* maintains a database on rare species and native ecosystems, and recommends lands for acquisition to protect them.
- *Natural Areas Program* acquires lands for preservation of ecological values and protection of native ecosystems and habitat for endangered, threatened, and sensitive plants and animals.
- *Riparian Open Space Program* provides funding to private landowners for acquisition lands in Channel Migration Zones to protect riparian function.
- *State Trust Land Management Program* manages about 2.1 million acres of forestland to generate revenue for state trust beneficiaries.

Through DNR, the state also participates in other federal grant programs that, when used in combination with the Forest Legacy Program, can provide greater benefit and leverage important conservation transactions. Such programs include the Cooperative Endangered Species Conservation Fund and National Costal Wetlands Conservation Program—both from the Department of the Interior.